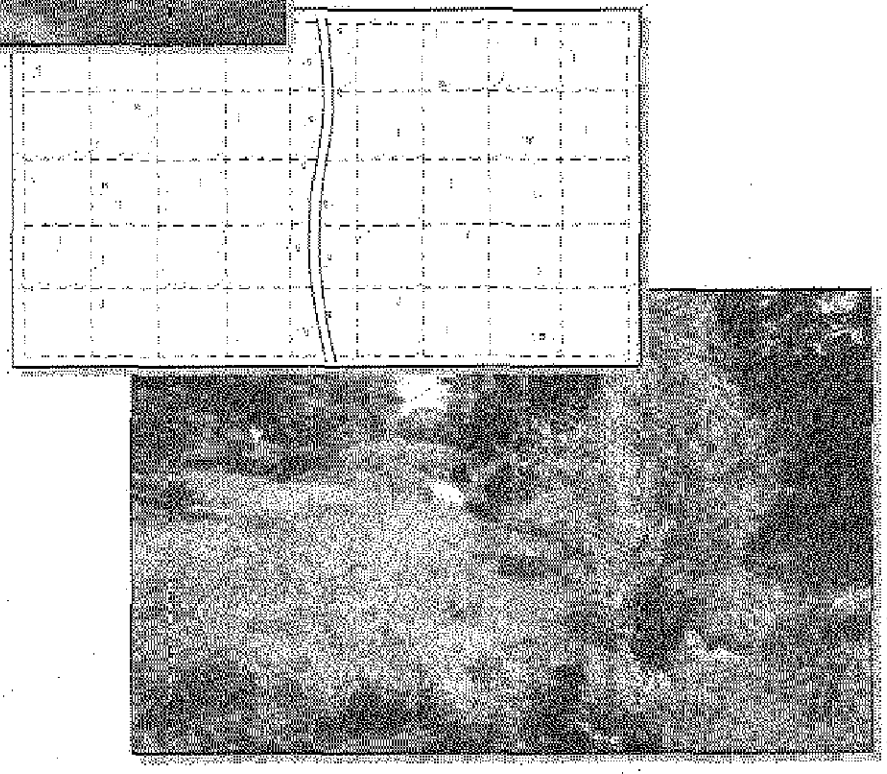
998-147

CALFED BAY-DELTA PROGRAM

Category III
Proposal for the

Clover Creek Flood Protection and Environmental Enhancement Project



Submitted by:
City of Redding

I—015193

I-015193

4.5 PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: Clover Creek Flood Protection and Environmental Enhancement Project
Applicant Name: City of Redding
Mailing Address: Department of Public Works, 760 Parkview, Redding, CA 96049-6071
Telephone: (503) 225-4170
Fax: (503) 245-7024
Email: pwgroup@ci.redding.ca.us

Amount of funding requested: $ 3,842,090 for 3 years

Indicate the Topic for which you are applying (check only one box).

- ☐ Fish Passage/Fish Screens
- ☒ Habitat Restoration
- ☐ Local Watershed Stewardship
- ☐ Water Quality
- ☐ Introduced Species
- ☐ Fish Management/Hatchery
- ☐ Environmental Education

Does the proposal address a specified Focused Action? ____ yes X no

What county or counties is the project located in? Shasta County

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
- ☒ Sacramento Trib: Clover Creek
- ☐ San Joaquin River Mainstem
- ☐ San Joaquin Trib: _____
- ☐ Delta: _____
- ☐ East Side Trib: _____
- ☐ Suisun Marsh and Bay
- ☐ North Bay/South Bay: _____
- ☐ Landscape (entire Bay-Delta watershed)
- ☐ Other: _____

Indicate the primary species which the proposal addresses (check all that apply):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☒ Winter-run chinook salmon
- ☒ Late-fall run chinook salmon
- ☐ Delta smelt
- ☐ Splittail
- ☐ Green sturgeon
- ☒ Migratory birds
- ☒ Other: Valley Elderberry Longhorn Beetle, Northwestern Pond Turtle & Tricolored Blackbird
- ☒ Spring-run chinook salmon
- ☒ Fall-run chinook salmon
- ☐ Longfin smelt
- ☒ Steelhead trout
- ☒ Striped bass
- ☐ All chinook species
- ☐ All anadromous salmonids

Specify the ERP strategic objective and target (s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II:

Ecological Process Visions (Vol. 1, pp. 42-47): Habitat Visions (Vol. 1, pp. 102-108)
Species and Species Group Visions (Vol. 1, pp. 176-181)
North Sacramento Valley Ecological Zone (Vol. 2, pp. 208-209)

Indicate the type of applicant (check only one box):

☐ State agency	☐ Federal agency
☐ Public/Non-profit joint venture	☐ Non-profit
☒ Local government/district	☐ Private party
☐ University	☐ Other: _____

Indicate the type of project (check only one box):

☐ Planning	☒ Implementation
☐ Monitoring	☐ Education
☐ Research	

By signing below, the applicant declares the following:

1.) The truthfulness of all representations in their proposal;

2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and

3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

MORTON F. AUGUST

Printed name of applicant

Morton F. August

Signature of applicant

EXECUTIVE SUMMARY

PROJECT TITLE:
Clover Creek Flood Protection and Environmental Enhancement Project

APPLICANT:
City of Redding

PROJECT DESCRIPTION/LOCATION
The Clover Creek Flood Protection and Environmental Enhancement Project would provide for the acquisition, restoration, and conservation of approximately 135 acres consisting of historic floodplain/detention area, low flow stream channel, open water, seasonal wetland, riparian, oak woodland regeneration, and grassland/meadow. Currently, this area is slated for a typical single family subdivision and has an approved Tentative Map for development of approximately 286 homes and channelization (200 foot wide) of the natural meandering stream channel. The enhancement project would provide significant ecological benefit and would alleviate continuing flood damage to existing local residents. While flood control for local residents could be achieved by other means (e.g., leveed channel or condemnation purchase of the floodplain), the Clover Creek Flood Protection and Environmental Enhancement Project would simultaneously address flood control and CALFED objectives. It achieves the best available and practical balance between residents' concerns and natural processes in an urban stream. Clover Creek is a seasonal to semi-perennial creek which originates at the base of the foothills of the Cascade Mountains and flows predominantly north to south, through parts of the City of Redding and Shasta County, meeting with the Sacramento River near the City of Anderson.

BIOLOGICAL/ECOLOGICAL OBJECTIVES
The biological and ecological objectives of the project would include:

- Reestablish the natural ***stream meander*** and ***Central Valley streamflow*** to provide needed sediments and habitats for fish, wildlife, and plant communities; including activation of ecological processes to sustain riparian and riverine aquatic habitat. Subsequent ***water quality*** improvements of Clover Creek, the Sacramento River and the Bay-Delta system;
- Address the effects of ***disturbance, levees bridges and bank protection,*** and ***contaminants*** due to urban runoff and other nonpoint sources; and the resulting threat to priority species, and habitat;
- Design and create three priority habitats: ***seasonal wetland and aquatic habitat, instream aquatic habitat, and shaded riverine aquatic and riparian habitat.*** These habitats will promote the rehabilitation of ***priority species*** from Priority Groups I - IV; and,
- Provide for ***flood management*** through restoration of a ***natural floodplain and floodplain processes***.

COST
The proposed budget is $3,842,090 for a three year program to design, construct and restore a historically functioning floodplain to provide flood protection, priority habitat, priority species, recreational and educational values, and a five year program of monitoring. The project may be approached in two ways (1) full implementation or (2) phased implementation. Phased

implementation may occur in four phases. Each phase would involve all of the tasks. Phased implementation is an avenue which provides more flexibility in funding. If CALFED should determine that the benefits of lending support to one phase rather than another would more suitably meet the goals and objectives of CALFED, funding could be provided for a single phase or combination of phases, as desired. Third party impacts would include:

- improved habitat and nesting areas for migratory waterfowl and other priority species in and around the North Sacramento Valley Ecological Zone.
- increased public education and knowledge of floodplain and habitat processes;
- enjoyment of increased aesthetic values and accessibility to a preserve area with walking trails and wildlife viewing for the residents of the City of Redding and the County of Shasta;
- enhanced knowledge of floodplain functions for Bay-Delta watershed management; and

APPLICANT QUALIFICATIONS

The Clover Creek Flood Protection and Environmental Enhancement Project will be administered by the City of Redding and receive support from the County of Shasta and Shastec Redevelopment Project, a joint project of Redding Redevelopment Agency, County of Shasta Redevelopment Agency, and Anderson Redevelopment Agency to address drainage needs within the area. The City of Redding has been designated as lead agency and is staffed with experienced managers, planners, and engineers who have demonstrated an ability to protect and restore natural resources. In addition, qualified, experienced staff of the County of Shasta will contribute support.

MONITORING AND DATA EVALUATION

Monitoring and data evaluation will include future hydrology studies, biological assessment and water quality sampling to evaluate the floodplain restoration and habitat enhancement efforts. Post-project monitoring is an important part of the project and will be conducted to determine (1) if there is an improvement of water quality resulting from construction of the proposed habitats; (2) if successful establishment of the proposed habitats has occurred; (3) if establishment of the habitat has had the desired subsequent benefits to target species; and (4) if adaptive management practices are needed. A set of success criteria will be established, in accordance with available literature, to set minimum standards for performance measures of each habitat type. Water quality monitoring will include temperature, turbidity, pH, dissolved oxygen levels, total nitrogen and phosphorus levels. Annual reports will be developed and provided to the CALFED Bay-Delta Program.

LOCAL SUPPORT/COORDINATION WITH OTHER PROGRAMS AND COMPATIBILITY WITH CALFED OBJECTIVES

The City of Redding has held a public workshop regarding the proposed project and envisions further public participation throughout implementation and monitoring. Local support of the project has been received through offers of volunteer efforts and written communication. A formal Coordinated Resource Management Group has not been formed for Clover Creek; however, there are several organized efforts within the region. The City of Redding has developed a compilation of Coordinated Resource Management Programs within the region and envisions establishing further contact to encourage volunteer public participation in implementation and monitoring activities. The project is compatible with CALFED's overall objectives to ***improve and increase aquatic and terrestrial habitats*** and to ***improve the ecological functions of the Bay-Delta system.***

CLOVER CREEK FLOOD PROTECTION AND ENVIRONMENTAL ENHANCEMENT PROJECT

PRIMARY CONTACT: Morton August, Director of Public Works
City of Redding
Department of Public Works
760 Parkview Avenue, Redding, California 96049-6071

Phone: (530) 225-4170
Fax: (530) 245-7024
E-mail: pwgroup@ci.redding.ca.us

PARTICIPANTS AND COLLABORATORS:

City of Redding
County of Shasta
City of Redding Residents of the Clover Creek Area
City of Anderson
Shastec Redevelopment Project

TYPE OF ORGANIZATION AND TAX STATUS: City Government - Exempt

TAX IDENTIFICATION NUMBER: 94-6000401

PROJECT DESCRIPTION - PROPOSED SCOPE OF WORK

The Clover Creek Flood Protection and Environmental Enhancement Project would provide for the acquisition, restoration, and conservation of up to approximately 135 acres consisting of historic floodplain/detention area, low flow stream channel, open water, seasonal wetland, riparian, oak woodland regeneration, and grassland meadow. Figure 1 and 1a illustrates the project area and the 100 year floodplain in relation to the urbanized areas upstream and downstream, as well as pre-and-post project. This area was previously approved for development of approximately 286 homes and channelization (200 feet wide) of the natural meandering stream channel. As currently proposed, the project would provide flood detention to alleviate downstream flooding of current local residents and include approximately 40 to 50 acres of floodplain area (including 10 to15 acres of seasonal wetland and associated riparian habitat), 40 to 50 acres of native grassland meadow, and 20 to 35 acres of oak woodland. In-field reconnaissance, review of aerial photography (Figure 2), and anecdotal data indicate a historically broader floodplain with a meandering stream channel. Preliminary hydrologic, engineering and design studies have been conducted, resulting in the conceptual design of the proposed project (Figure 3). The land would be acquired from willing sellers (See: Attachment A).

Disturbance, as a primary stressor, has affected the historically-functioning Clover Creek floodplain, and consequently, the natural stream meander, sediment transport and deposition, and riparian corridors. During the winters of 1994/95, 1995/96, 1996/97, and 1997/98, residents from downstream of the project area to the Sacramento River suffered from flooding. Eight of the property owners claim to have suffered damages which total in excess of $800,000. An exact amount in damages for all property owners downstream has not been quantified; however, if flooding continues, it is likely that significant additional damages would be incurred. Alternatives to solve flooding issues have been reviewed, from construction of a concrete-lined channel to the Sacramento River to condemnation and purchase of the entire downstream floodplain. These alternatives are considered too environmentally damaging and too expensive, respectively. While flood control for local residents could be achieved by other means (e.g., leveed channel or condemnation purchase of the floodplain), the Clover Creek Flood Protection and Environmental Enhancement Project would simultaneously address flood control and CALFED objectives. It achieves the best available and practical balance between residents' concerns and natural processes in a stream at the interface of typical suburban development and rural/semi-rural uses.

Construction methods would include excavation for the floodplain, detention basin, seasonal wetland areas, and broad swales in the grassland savannah area for water quality benefits (See: Figure 3). The floodplain area, detention basin, seasonal wetland areas, and berms/mounds for upland oak regeneration and swales would first be rough-graded using heavy machinery. These areas would then be fine graded using smaller machinery to create a more natural looking landscape. Wetland areas would be revegetated by collecting soil from any existing, impacted wetlands on-site, and placing the soil in the newly-excavated wetlands. This wetland-seed bearing soil will contain the wetland seed, rhizomes, and nutrients to allow for the rapid establishment of wetland vegetation. The remaining upland areas would be revegetated by first placing the top 3 inches of soil from the disturbed uplands on the newly created upland habitat

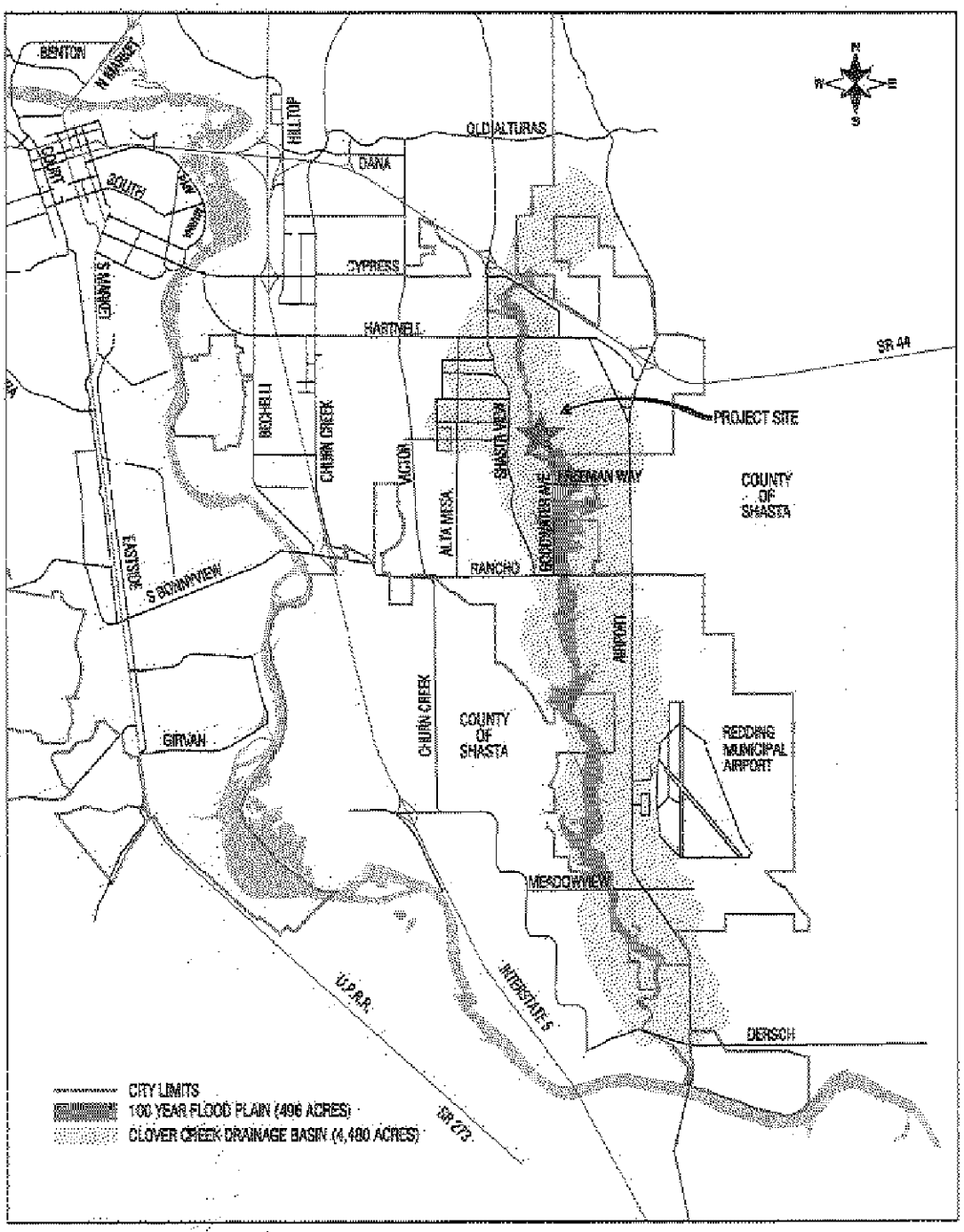


FIGURE 1. Clover Creek Floodplain – Pre Project

930015 Clover Creek

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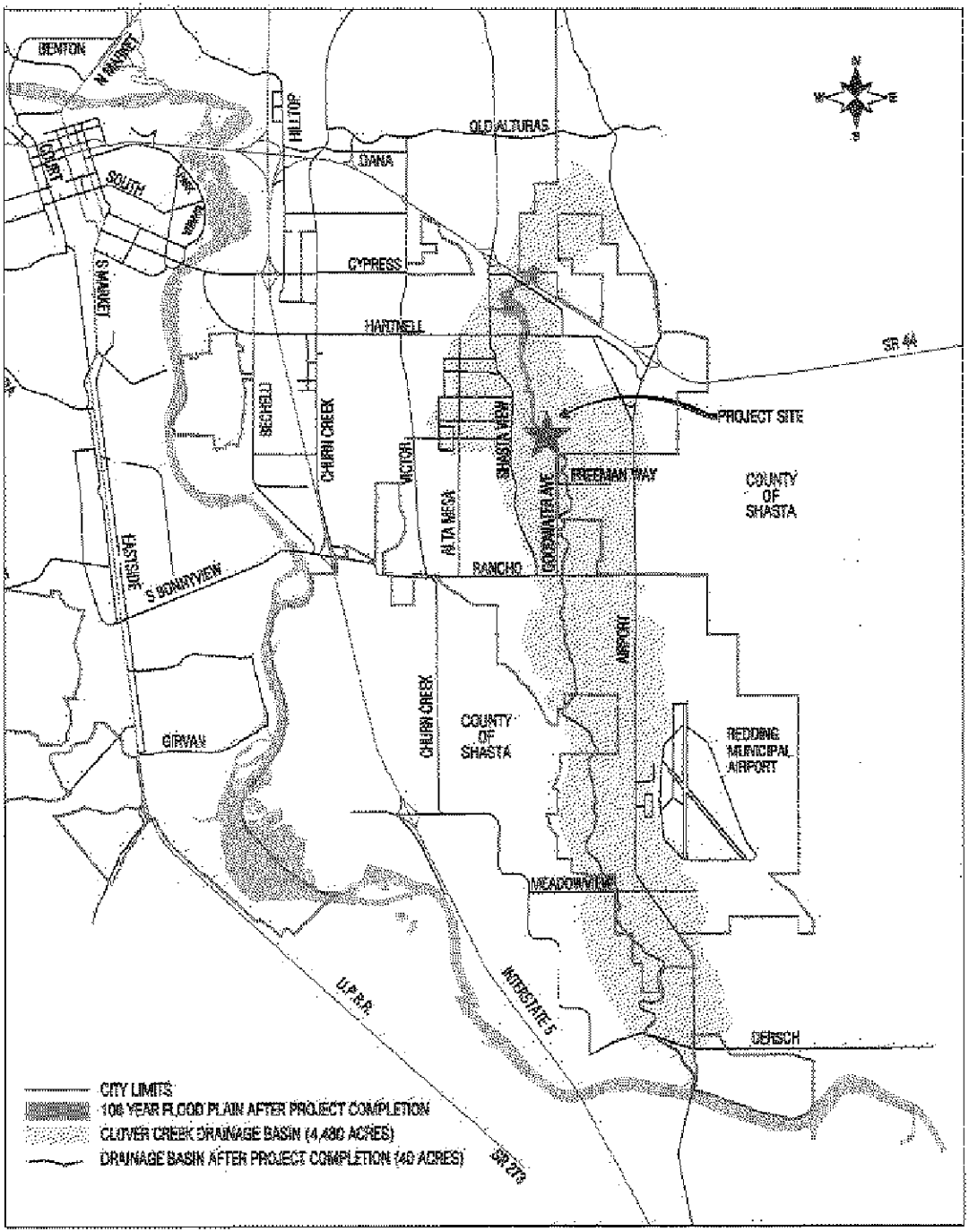

FIGURE 1a. Clover Creek Floodplain – Post Project

990015 Clover Creek

I-015201

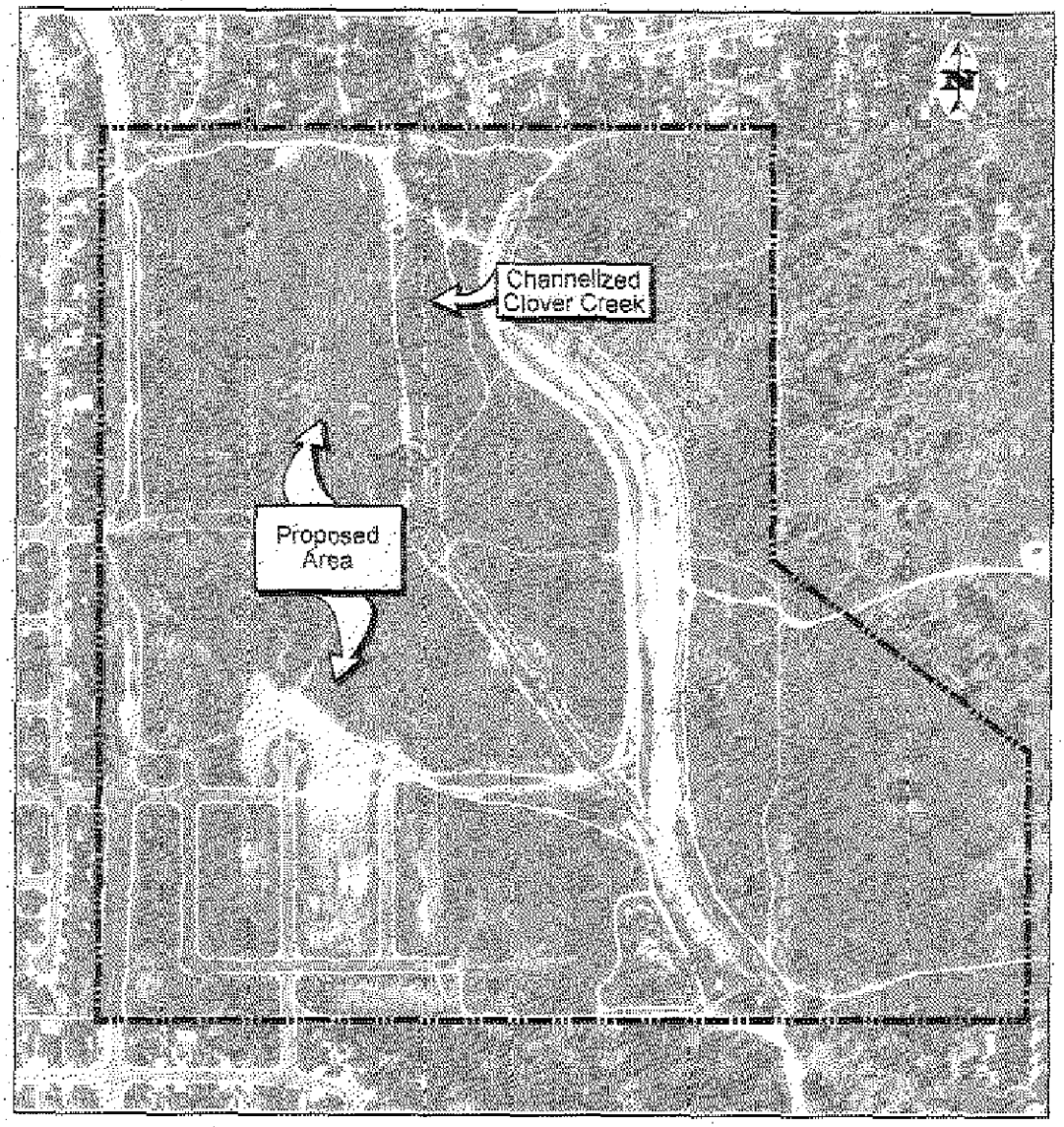

FIGURE 2. Proposed Project Area

990015 Clover Creek

FIGURE 3. Conceptual Design

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I-015203

areas. Hydroseed would also be used on top of the upland seed-bearing soil to ensure revegetation. Plantings in the riparian area would include pole cuttings and container stock, as necessary. Materials would include cottonwood and willows, and native grasses for the grassland meadow area. Oak regeneration activities will include fostering natural regeneration, direct seeding of acorns, and direct planting of oak tree seedlings.

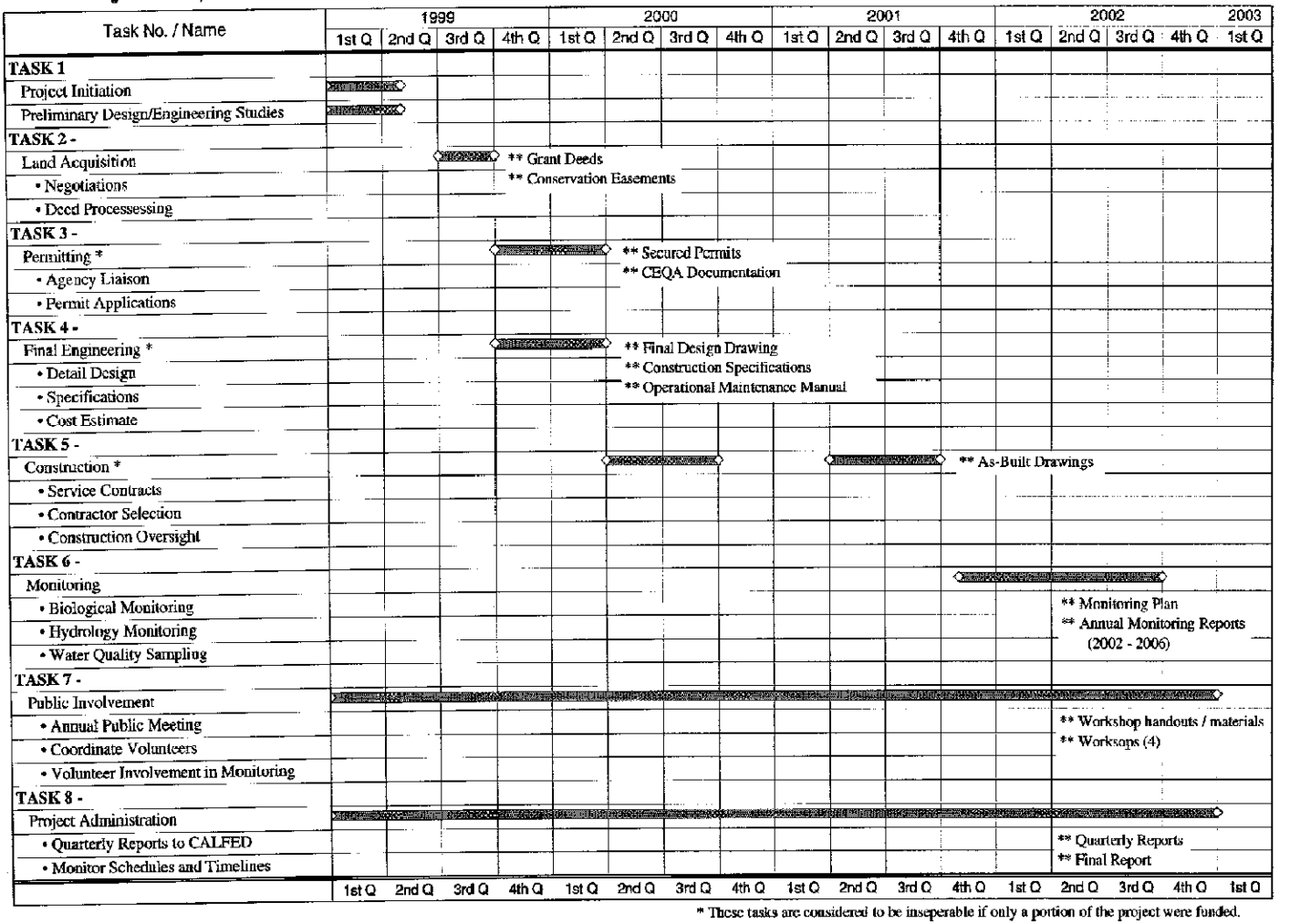
Phases, Tasks and Deliverables

Due to the accelerated time frame in which the project must be completed, it is proposed that the project be approached in phases to allow for expedient implementation of primary project objectives: floodplain and riparian habitat restoration. The proposed phases are illustrated in Figure 4, *Phased Implementation*. Phase 1 would provide for the acquisition and restoration of 40 to 50 acres of the principal flood plain area, including the 10 to 15 acres of associated seasonal wetland and riparian areas. Another 5 to 10 acres would be acquired to allow stockpiling of excavated material until implementation of Phase 2. Phase 2 would include acquisition and restoration of another 15 to 25 acres of oak woodland and grassland meadow. Phase 3 would include the purchase of approximately 15 to 20 acres of oak woodland regeneration area. Phase 4 would include the purchase of 25 to 30 acres of oak woodland and grassland meadow area. The tasks that would be implemented in each phase are described below and in Table 1, *Proposed Tasks, Schedule and Deliverables*. Tasks that are denoted with an asterisk (*) are considered inseparable from other project tasks should only a portion of the project be funded.

Task/Schedule	**Deliverables**
Task No. 1: Project Initiation/Preliminary Design Engineering (1st - 2nd Q, 1999) Data Gathering and Review • Bidding and Contracting • Biological Assessment • Hydrology Studies • Preliminary Engineering Studies	✓ Bid Packages for Preliminary Design ✓ Consultant Selection ✓ Biological Assessment ✓ Soils Report ✓ Topography ✓ Hydrology Study ✓ Preliminary/Conceptual Designs
Task No.2: Land Acquisition (3rd Q, 1999) • Negotiations for acquisition • Processing of Grant Deeds, Conservation Easements, etc.	✓ Grant Deeds ✓ Conservation Easements
Task No. 3: Permitting* (4th Q, 1999 - 1st Q, 2000) • Liaison with appropriate federal and state agencies • Preparation and processing permit applications and CEQA documentation	✓ Secured Permits ✓ CEQA Documentation
Task No. 4: Final Engineering* (4th Q, 1999, - 1st Q, 2000) • Detailed Design • Equipment Selection and Specification • Cost Estimate	✓ Final Design Drawing ✓ Construction Specification Document ✓ Operational Maintenance Manual

FIGURE 4. Phased Implementation

Table 1. Project Tasks, Schedule and Deliverables



* These tasks are considered to be inseperable if only a portion of the project were funded.

** Deliverables.

Task/Schedule	Deliverables
Task No. 5: Construction* (2nd Q-3rd Q, 2000 and 2nd Q - 4th Q, 2001) • Processing of service contracts • Contractor selection • Oversight of construction activities	✓ Project Implementation ✓ "As-Built" Drawings

Task No. 6: Monitoring * (1st Q, 2002, - 1st Q, 2006)
• Develop Monitoring Plan to include:
  • Hydrological monitoring to determine appropriate floodplain function
  • Biological monitoring for priority species/habitats
  • Water quality sampling
	✓ Monitoring Plan
	✓ Annual Monitoring Reports

Task No. 7 Public Involvement* (1st Q, 1999 - 1st Q, 2006)) • Annual Public Workshops • Coordination of volunteer efforts with Local CRMPs • Volunteer involvement in monitoring	✓ Workshop handouts and materials ✓ Annual workshops ✓ Volunteer monitoring coordination
Task No. 8 Project Administration* (1st Q, 1999 - 1st Q, 2006) • Prepare quarterly reports to CALFED Bay-Delta Program • Monitoring of schedule and timelines for implementation	✓ Quarterly Reports ✓ Final Reports

As part of the City's cost-sharing efforts, Task 1, Project Initiation and Preliminary Engineering and Design, is currently being accomplished.

Location and/or Geographic Boundaries of the Project

Clover Creek is a seasonal to semi-perennial creek originating at the base of the foothills of the Cascade Mountains, and flowing predominantly north to south, meeting with the Sacramento River near the City of Anderson. Clover Creek flows through parts of Shasta County and the City of Redding, and is within the Sacramento-Lower Cow-Lower Clear Watershed. The *Ecosystem Restoration Program Plan* classifies Clover Creek as being within the North Sacramento Valley Ecological Zone. The project site is approximately 5 miles east of downtown Redding, California, and is bounded by Shasta View Drive (incomplete) on the west, Forest Hills Estates and Drive on the north, undeveloped land and Airport Road on the east, and Highland Oaks development and rural development to the south. The site corresponds to a portion of Section 9, Township 31 North, Range 4 West of the "Enterprise, California" 7.5 minute quadrangle (U.S. Department of the Interior, Geological Survey 1969) (Figure 5 - *Project Site and Vicinity*). Utilizing the Lambert Conformal Conic Projection method and North American Datum 1927, the California coordinates for the project site are within zone one as follows: Northing, 444,500; and Easting 1,911,500.

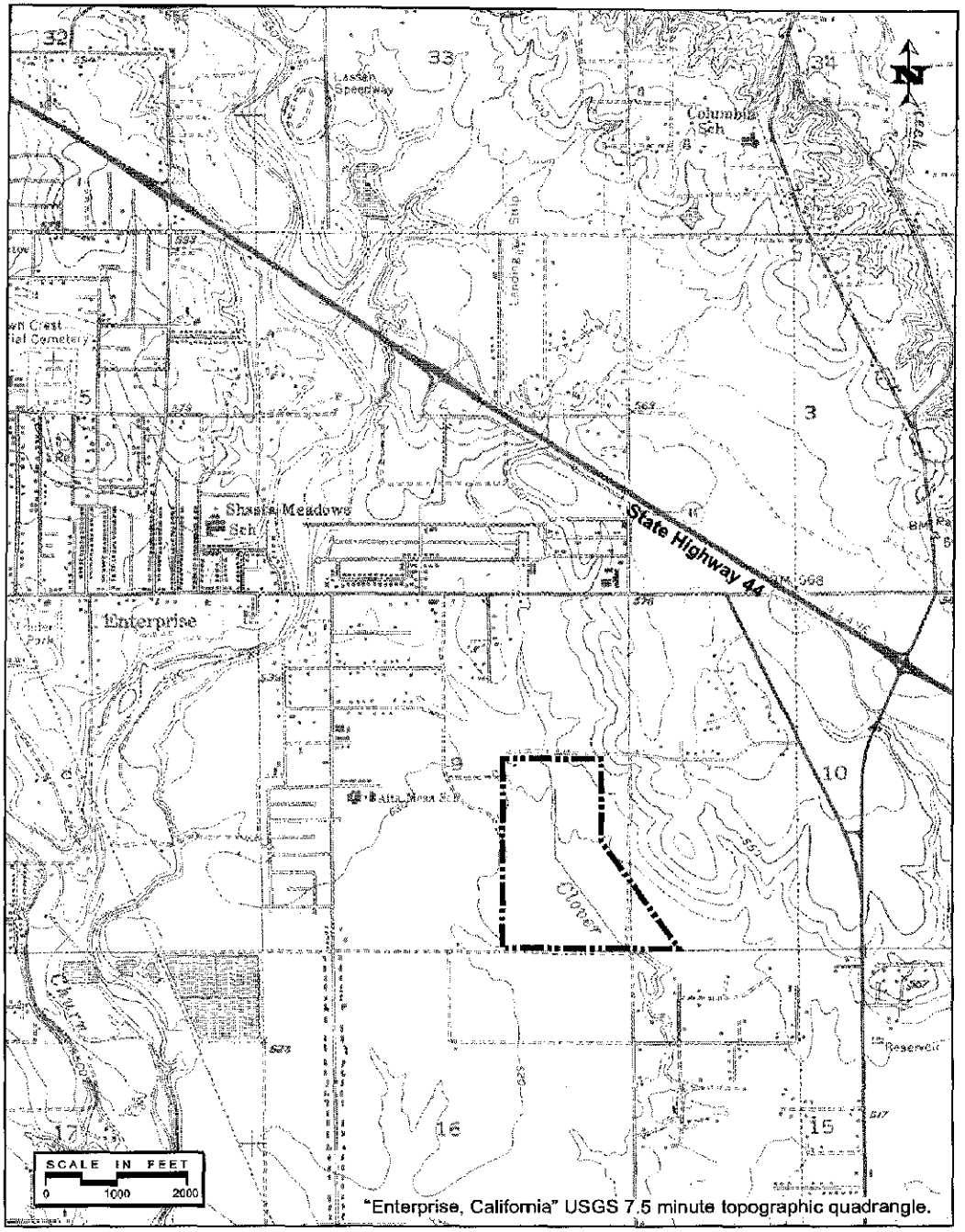


FIGURE 5. Project Site and Vicinity

990015 Clover Creek

Ecological/Biological Benefits

Primary benefits resulting from this project would include:

- reestablishment of Clover Creek to a natural meandering channel within an expanded floodplain;
- reduction of sediment impacts to spawning areas on the section of Clover Creek upstream of the Sacramento River used by steelhead trout;
- creation/restoration of adjacent priority habitats, such as seasonal wetland and aquatic habitat, instream aquatic habitat, and shaded riverine and riparian habitat, as well as upland oak woodland and grassland meadow;
- improvement of water quality for Clover Creek, the Sacramento River, and the Bay-Delta Region;
- expansion and restoration of the floodplain;
- biological and water quality monitoring and reporting to the CALFED Bay-Delta Program;
- creation of walking trails and wildlife viewing areas to increase public understanding of floodplain management and associated habitat restoration; and,
- alleviation of flood damage to current residents.

The establishment of the floodplain, meandering creek, and riparian corridor would enhance priority habitat while alleviating repeated flooding and the resulting loss of property to residents downstream. In addition, areas downstream of the floodplain (including the Sacramento River and the Bay-Delta Region) will receive the benefits of improved water quality through the reduction of sediment load and pollutants. The project would also address the following primary stressors, priority habitat, priority species, and secondary species as cited in the *Ecosystem Restoration Program Plan*.

Primary Stressors

Primary stressors that would be addressed in the project include ***disturbance*** due to urbanization, ***levees, bridges and bank protection***, and ***contaminants*** due to urban runoff and other nonpoint sources. Disturbance due to urbanization results in threats to priority species, priority habitat, increased risk of flooding, and increased stream flows. Levees, bridges and bank protection typically result in an inhibition of overland flow and associated erosional and depositional processes, elimination of natural streamflow channel meander, and reduction of riparian corridor and associated priority habitats. Contaminants, as a result of urban runoff and other nonpoint sources, can lead to increased pollutants and nutrients and the degradation of water quality, and overall health of the Bay-Delta system. Expected benefits of the project would include a reduction in primary stressors through creation of priority habitat and restoration of natural floodplain processes. Creation of seasonal wetlands will improve water quality by reducing sediment loadings and converting contaminants into less harmful forms; thereby contributing to the overall water quality of the Sacramento River.

Creation of priority habitat would include ***shaded riverine aquatic habitat, seasonal wetland and aquatic habitat, and instream aquatic habitat.*** Reduction in stressors and creation of priority habitats will subsequently provide benefit for the following priority I, II, II and IV group species:

- Sacramento late-fall run Chinook salmon
- winter-run Chinook salmon
- spring-run Chinook salmon
- steelhead trout
- Sacramento fall-run Chinook salmon
- striped bass
- Valley elderberry longhorn beetle
- Swainson ' s hawk
- tricolored blackbird
- Northwestern pond turtle
- migratory waterfowl

Linkages

Currently, preliminary design and engineering is underway. Three alternative conceptual designs have been completed and are being evaluated. The project alternative presented in this proposal would provide the greatest amount of overall ecological benefit and enhancement. Preliminary geotechnical studies will be accomplished in April, 1999.

Ecosystem Restoration Program Plan ecological processes, habitat vision, and species and species group vision objectives (*Ecosystem Restoration Program Plan, Volume I*) which will be addressed by this project include:

- *Ecological Process Visions* - Central Valley Streamflow - Goal 2. Rehabilitate natural processes in the Bay-Delta estuary and its watershed to support, with minimal ongoing human intervention, natural aquatic and associated terrestrial biotic communities, in ways that favor native members of the communities (Volume I, pp. 42-47).
- *Habitat Visions* - Objective 2. Restore large expanded of all aquatic, wetland and riparian habitats in the Central Valley and its rivers (Volume I, pp. 102-108).
- *Species and Species Group Visions* - Priority Group I, II, III, and IV - Strategic Plan Objective to achieve recovery of at-risk native species in San Francisco Bay and the watershed above the estuary. The project addresses species from each priority group as listed above (Volume I, pp. 176-181).

Ecosystem Restoration Program Plan ecological processes and habitat objectives (Volume II, pp. 208-209) for the North Sacramento Valley Ecological Zone which would be addressed by this project include:

- *Central Valley Streamflow* - Provide streamflow at levels that activate ecological processes that shape the stream channels and sustain riparian and riverine aquatic habitat.
- *Stream Meander* - Establishment of stream meander corridors to provide needed sediments and habitats for fish, wildlife, and plant communities.
- *Natural Floodplain and Flood Processes* - Maintain floodplains of streams at levels that permit recurrent floodplain inundation.
- *Riparian and riverine aquatic habitat* - Healthy riparian corridor provide a migratory pathway between lower and higher elevation habitats. Corridors should be restored and maintained to improve sediment transport, stream meander, and reconnection of streams with their floodplains.

Restoration of the floodplain is necessary to alleviate damage from future flooding events to current residents. Along with *Ecosystem Restoration Program Plan* objectives, the Clover Creek Flood Protection and Environmental Enhancement Project would include the following ecological benefits:

- provide habitat for wildlife such as migratory birds, Swainson's hawk, tricolored blackbird (and other species identified above);
- contribute to species diversity by creating habitats that support different biological communities;
- moderate channel incision and scouring by providing area for bank overflow;
- contribute to the aquatic foodweb by collecting and transporting organic matter from the floodplain back to channels and eventually to the Bay-Delta estuary; and,
- enhance steelhead trout spawning habitat.

This project was initiated upon the basis of several hydrological studies previously undertaken to determine the necessary storage capacity to alleviate the recurring loss of property due to flooding. Figure 6 identifies the studies and reports compiled to date regarding the Clover Creek floodplain. Implementation of this project would result in long-term aesthetic, economic, and ecological benefits to the residents of the City of Redding and Shasta County, as well as to for the Bay-Delta ecosystem.

Systemwide Ecosystem Benefits

Within the Lower Cow-Lower Clear watershed, which has experienced and will continue to experience urbanization, the project represents a significant amount of open space and priority habitat to be preserved. Overall, system-wide benefits would include the rehabilitation of natural processes supporting natural aquatic and terrestrial communities, enhancement of populations of priority species, restoration of functional habitat types for public values, such as aesthetics and education, and improvement of water quality to eliminate impacts to humans and other organisms. Implementation of these types of projects on a system-wide scale represent significant contributions to improvement of overall Bay-Delta ecosystem health.

Compatibility with Non-Ecosystem Objectives

The Clover Creek Flood Protection and Environmental Enhancement Project would support two of CALFED's non-ecosystem objectives. The Water Quality Program's objective is to provide good water quality for all beneficial uses. This project would improve water quality for the watershed, as well as for the Bay-Delta system. Second, the project would support the objectives of the watershed management program by encouraging local watershed stewardship activities and providing opportunity to export knowledge and understanding of restoration activities in this watershed to other watersheds.

Third party benefits would include:

- increased public education and knowledge of floodplain and habitat processes;
- enjoyment of increased aesthetic values and accessibility to a preserve area with walking trails and wildlife viewing for the residents of the City of Redding and the County of Shasta;
- enhanced knowledge of floodplain functions for Bay-Delta watershed management; and
- improved habitat and nesting areas for migratory waterfowl in and around the North Sacramento Valley Ecological Zone.

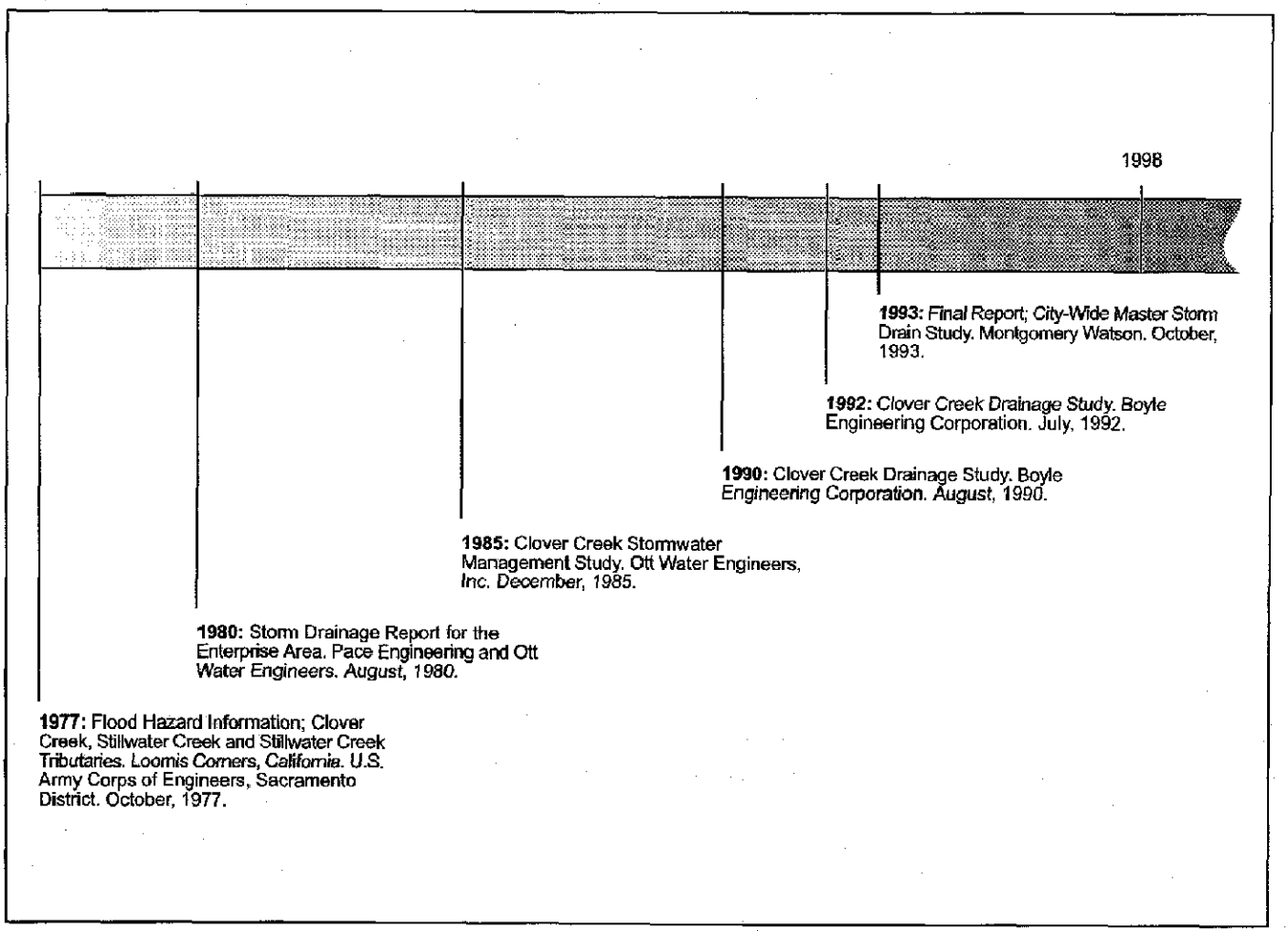


FIGURE 6. Clover Creek Floodplain Restoration Studies

I-015212

Technical Feasibility and Timing

As proposed, the project involves complete floodplain and habitat enhancement for up to approximately 135 acres of land that has been significantly altered and for which urban development has been approved. The creek has previously been channelized as a result of proposed development, and is not functioning under its normal hydrologic regime.

The City of Redding has identified this site as a premium site for implementing a portion of its General Plan that calls for a Clover Creek Corridor from Hartnell Avenue (approximately one mile north of the site) to the Sacramento River (approximately 5 miles to the south). Some of the guidelines for the corridor include provision for a habitat conservation plan for protection of aquatic habitat, and provision for trails along the corridor for aesthetic enjoyment.

Other than the proposed alternative, other alternatives have been considered. Some development improvements including infrastructures such as roads, sewer lines and water lines have been constructed in the southwest corner of the project area. Other considered alternatives provided for development in the southwest corner to proceed as planned, designation of the upland oak regeneration area in the northeast corner for future development. Condemnation and purchase of the entire floodplain downstream was considered by rejected as too expensive. Another alternative included a concrete-lined channel to the Sacramento River, approximately 5 miles south. This Clover Creek Flood Protection and Environmental Enhancement Project alternative represents the most environmentally sound alternative, providing the greatest ecological and habitat value.

Environmental documents necessary for the project include a Negative Declaration or Environmental Impact Report to comply with the requirements of the California Environmental Quality Act; a Clean Water Act, Section 404 permit and Section 401 waiver; and a Streambed Alteration Agreement with the California Department of Fish and Game. The site is currently zoned as single family residential, and will need to be rezoned. There are existing easements within the project site, however, they are all deeded to the City of Redding.

As of this date, the estimated time frames for securing necessary permits has been included in the schedule for implementation (See: Table 1, *Proposed Tasks, Schedule and Deliverables*). The applicant does not anticipate that any significant delays will be encountered.

MONITORING AND DATA COLLECTION METHODOLOGY

Monitoring and data evaluation would include future hydrologic studies, water quality sampling, and biological assessment (flora and fauna surveys) to evaluate the habitat enhancement efforts.

Biological/Ecological Objectives

The primary biological/ecological objective of this project is to create priority habitat resulting in subsequent benefits to the Sacramento River watershed by improving water quality and providing potential habitat to several of its priority I, II, III, and IV species. Post-project monitoring is an important part of the project and will be conducted in order to determine (1) if there is an improvement in water quality resulting from construction of the proposed habitats; (2) if successful establishment of the proposed habitats has occurred; (3) if establishment of the habitat has had the desired subsequent benefits to target species; and (4) if adaptive management practices are needed.

Monitoring Parameters and Data Collection Approach/Data Evaluation Approach

In order to assess the successful establishment of the constructed habitats, a set of success criteria, as determined by the available literature and appropriate state and federal agencies, will be established to set minimum performance standards for each habitat type. During each monitoring year, the site will be visited by a qualified biologist to collect the following data and to assess these habitats relative to their success criteria. Timing of the field visits should facilitate examination of each habitat type during its optimal season. Within the aquatic habitats, monitoring will utilize the point-intercept method of vegetative data collection. A sufficient number of transects should be randomly chosen each year to accurately represent the various on-site conditions. The data will be used to calculate the Prevalence Index (USACOE 1989), an index used to determine the dominance of "wetland" species in a particular habitat. In addition, permanent $10m^2$ plots will be established. Within these plots, absolute cover of vegetation, open water, exposed substrate cover, and relative cover of individual plant species will be measured. Within the oak woodland and riparian habitats, shrub/tree cover will be measured from permanently selected $10m^2$ plots. Finally, within the meadow habitat, a random line transect will be selected annually and random $1m^2$ plots will be located along that transect. In each of these plots, a complete species list along with relative species cover and absolute vegetative cover will be recorded. In conjunction with the monitoring of constructed habitats, a qualified biologist will also make general observations regarding the presence of target species.

Water quality monitoring will include temperature, turbidity, pH, dissolved oxygen (DO) levels, total nitrogen and phosphorus levels. Measurement frequency of these general background parameters will be selected based on expected storm hydrograph characteristics. Analysis of water quality parameters should follow standard methods (Standard Methods for the Examination of Water and Wastewater, 14th ed., American Public Health Association, 1975) and a QA/QC program will be in place for both sample collection and sample analysis. Hydraulic monitoring will include installation of water level records and precipitation gauges. Additional monitoring and data collection information regarding project objectives is illustrated in Table 2, *Biological/Ecological Objectives*.

Finally, an annual biological monitoring report, summarizing the results of the monitoring, would be prepared and provided to the CALFED Bay-Delta Program. The City would incorporate an adaptive management approach based upon the findings of monitoring reports.

LOCAL INVOLVEMENT

The City of Redding will oversee and lead the cooperative restoration efforts with the support and assistance of the County of Shasta, Redding, Shasta County and Anderson Redevelopment Agencies, local Coordinated Resource Management Groups, and other local volunteer effort. The County has been formally notified of this application in a letter dated April 8, 1999 (Attachment B).

On March 24, 1999, the city conducted a public workshop. A public meeting announcement was placed in the local Sunday newspaper and personal invitations were extended to residents surrounding the project area. Approximately 50 people were in attendance to hear a presentation regarding three conceptual alternatives. The objective of the meeting was to introduce the public to the three alternatives, and stimulate feedback and potential volunteer efforts. City personnel and

Table 2. Biological/Ecological Objectives

Hypothesis/Question	Monitoring Parameters and Data Collection Approach	Data Evaluation Approach	Comments/Data Priority
Successful establishment of proposed habitats?			
Aquatic habitats	▸ point intercept method to facilitate calculation of Prevalence Index (USACOE, 1989)[1] ▸ estimates of cover of absolute vegetation, open water, exposed substrate cover, and relative cover of individual plant species.[1]	Performance measures Success criteria	Implement Adaptive Management Measures, if necessary.
Oak woodland and riparian habitats	▸ individual planting survival, height, condition ▸ estimates of cover in $10m^2$ blocks located in permanently selected plots.[2]	Performance measures Success criteria	Implement Adaptive Management Measures, if necessary.
Grassland/meadow habitats	▸ species lists and estimates of cover (relative species cover and overall vegetative cover) in a series of $1m^2$ plots located along a randomly selected transect (Kershaw, 1973).[2]	Performance measures Success criteria	Implement Adaptive Management Measures, if necessary.
Habitat has desired effect for target species?	▸ Periodic mammal surveys ▸ Periodic bird surveys	Correlation with habitat performance measures and success criteria	Coordinate with other regional studies to make the site available to other species specific studies
Water quality improvements?	▸ Temperature, turbidity, pH, dissolved oxygen (DO) levels, total nitrogen and phosphorus levels). Measurement frequency of these general background parameters will be selected based on expected storm hydrograph characteristics.[3]	Improvements observed from background levels	Implement Adaptive Management Measures, if necessary.
Hydrology - Hydrology functions as expected?	▸ Installation of water level recorders and precipitation gauges. ▸ Record up to 10 flow measurements over a five year period encompassing range of flows (low and high) to confirm outlet rating curve		Implement Adaptive Management Measures, if necessary.

[1] Federal Interagency Committee for Wetland Delineation. Federal Manual for Identifying and Delineating Jurisdictional Wetlands, USACOE, USEPA USFWS, and USDA and Soil Conservation Service, Washington, DC, Cooperative technical publication (1989).

[2] Quantitative and Dynamic Plant Ecology, Kenneth A. Kershaw, (1973).

[3] Standard Methods for the Examination of Water and Wastewater, 14th ed., American Public Health Association (1975).

consultant team members were on hand to answer question and address any concerns. Members of the public expressed enthusiastic support for the restoration and enhancement project and volunteered to lend their efforts where needed. Attached are letters of support from residents of the City of Redding (Attachment C). In addition, local representatives and agencies have been contacted and informed of the project and the associated benefits which will be in concert with the missions and objectives of their respective agencies.

Although a Coordinated Resource Management Group has not been formally organized for Clover Creek, the City of Redding has developed a compilation of CRMGs in the North Sacramento Valley Ecological Zone. Further contacts are being initiated to encourage public participation in implementation and monitoring activities. Currently, water quality and habitat monitoring is being conducted by the nearby Sulphur Creek CRMP. The City of Redding envisions coordination between the two monitoring programs to assess data and exchange information and knowledge.

Public involvement in the cooperative effort will be encouraged with yearly workshops and involvement of the public in planned long-term monitoring activities.

Third party impacts will include will include:

- increased public education and knowledge of floodplain and habitat processes;
- enjoyment of increased aesthetic values and accessibility to a preserve area with walking trails and wildlife viewing for the residents of the City of Redding and the County of Shasta;
- enhanced knowledge of floodplain functions for Bay-Delta watershed management; and
- improved habitat and nesting areas for migratory waterfowl in and around the North Sacramento Valley Ecological Zone.

COST

The project may be approached in one of two manners. The first would be to have the complete project funded and implemented through a combination of both the CALFED Bay-Delta Program and City of Redding cost-sharing funds. Second, would be a proposal to approach the project in four phases. Each of the four phases would involve all of the tasks outlined in the project description. Attached is Table 3, Cost Breakdown which identifies the entire project budget for complete restoration of the 135 acre site. Due to the accelerated time frame in which the initial phase of the project must be completed to achieve flood control for winter 2000-2001, and in order to provide for more flexibility in funding, the budget of each phase (with all eight tasks included), has been outlined in Table 4. Phasing of the project would require additional project management, which would yield an additional 15 percent in the overall project cost. The Quarterly Budget of the entire project is provided in Table 5. If CALFED should determine that the benefits of lending support to one phase rather than another would more suitably meet the goals and objectives of CALFED, funding could be provided for a single phase or combination of phases, as desired.

The City ' s overhead costs are in conformance with the OMB Circular A-87 and the implementing instruction contained in the Guide OASC -10 published by the U.S, Department of Health and Human Services. Further, no costs other than those incurred by the Public Works Department or allocated to that Department via an approved central service cost allocation plan were included in its

Table 3. Cost Breakdown

PROJECT PHASE	DIRECT LABOR	DIRECT SALARY AND BENEFITS**	OVERHEAD LABOR*** (General Admin. And Fee)	SERVICE CONTRACTS	MATERIALS AND ACQUISITION	MISC.	TOTAL
Task No. 1 Initiation/ Preliminary Design/Engineering	100	4,200	3,000	150,000		1,800	159,000
Task No. 2 Acquisition	140	5,880	4,200		1,419,000	300	1,429,380
Task No. 3 Permitting	100	4,200	3,000	55,000		1,000	63,200
Task No. 4 Final Engineering	140	5,880	4,200	95,000		500	105,580
Task No. 5 Construction	180	7,560	5,400	3,161,510	4,500	1,000	3,179,970
Task No. 6 Monitoring	180	7,560	5,400	25,000		1,000	38,960
Task No. 7 Public Involvement	160	6,720	4,800	5,000		1,000	17,520
Task No. 8 Project Management	130	5,460	3,900			1,000	10,360
Project Total							**5,003,970**
Total City - Cost Sharing*							***1,161,880****
CALFED Funding Requested							**3,842,090**

City Cost-Sharing Contributions	
Task 1. Initiation/Preliminary Design/Engineering	159,000
Task 7. Public Involvement	2,880
Available Funds	1,000,000
Total	***$1,161,880***

Hourly Rate
**Salary and Benefits = Estimated average of $42/hr.
***Overhead = 71% salary and benefits

Table 4. Phases Cost Breakdown

Phase 1. Floodplain/Detention Area	Direct Labor	Direct Salary and Benefits	Overhead Labor	Service Contracts	Materials and Acquisition	Misc.	City Contribution	Total
Task 1. Initiation/ Preliminary Design/Engineering	69	2,898	2,070	90,000	–	1240	*96208*	96208
Task 2 Acquisition	96	4,032	2,880		594,000	200		601,112
Task 3. Permitting	69	2,898	2,070	37,950		700		43618
Task 4. Final Engineering	96	4,032	2,880	65,550		345		72,807
Task 5. Construction	124	5,208	3,720	2,181,440	3,105	700		2,193,473
Task 6. Monitoring	124	5,208	3,720	17,250	–	700		26,878
Task 7. Public Involvement	110	4,620	3,300	3,450	–	700	*1,730*	13,800
Task 8. Project Management	90	3,780	2,700	--	–	700		7,180
Phase 1 Total								**3,055,076**
							697,938[1]	
Total City - Cost Sharing								
CALFED Funding Requested								**2,357,138**
Phase 2. Oak Woodland/ Grassland Meadow								
Task 1. Initiation/ Preliminary Design/Engineering	23	966	690	30,000	--	410	31,796	31,796
Task 2 Acquisition	32	1,344	960	--	440,000	70		442,374
Task 3. Permitting	23	966	690	12,650	--	230		14,536
Task 4.Final Engineering	32	1,344	960	21,850	--	115		24,269
Task 5. Construction	41	1,722	1,230	727,140	1,035	230		731,357
Task 6. Monitoring	41	1,722	1,230	5,750		230		8,932
Task 7. Public Involvement	36	1,512	1,080	1,150		230	576	4,548
Task 8. Project Management	30	1,260	900	--	--	230	--	2,390
Phase 2 Total								**1,260,202**
							231,796[2]	
Total City - Cost Sharing								
CALFED Funding Requested								**1,028,406**

[1] Includes 60% of 1,000,000 of available funds.

[2] Includes 20% of 1,000,000 of available funds.

1

Table 4. Phases Cost Breakdown

Phase 3. Oak Woodland Regeneration	Direct Labor	Direct Salary and Benefits	Overhead Labor	Service Contracts	Materials and Acquisition	Misc.	City Contribution	Total
Task 1. Initiation/ Preliminary Design/Engineering	12	504	360	15,000	--	200	*16,064*	16,064
Task 2 Acquisition	16	672	480	--	165,000	35		166,187
Task 3. Permitting	12	504	360	6,325	--	115		7,304
Task 4.Final Engineering	16	672	480	10,925	--	57		12,134
Task 5. Construction	20	840	600	363,570	517	115		365,642
Task 6. Monitoring	20	840	600	2,875	--	115		4,430
Task 7. Public Involvement	18	756	540	575	--	115	*280*	1,986
Task 8. Project Management	15	630	450	--	--	115		1,195
Phase 3 Total								**574,942**
							116,344[1]	
Total City - Cost Sharing								
CALFED Funding Requested								**458,598**
Phase 4. Oak Woodland/ Grassland Meadow								
Task 1. Initiation/ Preliminary Design/Engineering	12	504	360	15,000	--	200	*16,064*	16,064
Task 2 Acquisition	16	672	480	--	220,000	35		221,187
Task 3. Permitting	12	504	360	6,325	--	115		7,304
Task 4.Final Engineering	16	672	480	10,925	--	57		12,134
Task 5. Construction	20	840	600	363,570	517	115		365,642
Task 6. Monitoring	20	840	600	2,875	--	115		4,430
Task 7. Public Involvement	18	756	540	575		115	*280*	1,986
Task 8. Project Management	15	630	450	--	--	115		1,195
Phase 4 Total								**629,942**
							116,344[2]	
Total City - Cost Sharing								
CALFED Funding Requested								**513,598**

[1] Includes 10% of 1,000,000 of available funds.

[2] Includes 10% of 1,000,000 of available funds.

Table 5. Quarterly Budget

	Oct-Dec 99	Jan - Mar 00	Apr - June 00	July-Sept 00	Oct-Dec 00	Jan-Mar 01	Apr-June 01	July-Sept 01	Oct-Dec 01	Jan-Mar 02	Apr-June 02	July-Sept 02	Total
Task No. 1													159,000[1]
Task No. 2 Acquisition	1,429,380	--											1,429,380
Task No. 3 Permitting	45,000	18,200											63,200
Task No. 4 Final Engineering	85,000	20,580											105,580
Task No. 5 Construction			1,250,000	1,000,000			500,000	429,970					3,179,970
Task No. 6 Monitoring									1,948	1,948	1,948	1,948 thru 2006	38,960
Task No. 7 Public Involvement	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	17,520
Task No. 8 Project Management	863	863	863	863	863	863	863	863	863	863	863	863	10,360
Total	1,561,703	41,103	1,252,323	1,002,323	2,323	2,323	502,323	432,323	4,217	4,217	4,217	34,001	**5,003,970**

[1] This task is currently being implemented.

indirect cost pool as finally accepted, and that such incurred costs are legal obligations of the city and allowable under the governing principles; that the same costs that have been treated as indirect costs have not been claimed as direct costs; that similar types of costs have been accorded consistent accounting treatment; and, that the information provided by the City which was used a basis for acceptance of the rates agreed to in the Negotiation Agreement are not subsequently found to be materially inaccurate.

COST SHARING

As noted in the Cost section, the City of Redding has allocated approximately $1,000,000 in funding for implementation of the proposed project. To date, approximately $161,000 has been committed to undertake preliminary design and engineering studies.

APPLICANT QUALIFICATIONS

MORTON AUGUST

Mr. Morton August is the Director of Public Works for the City of Redding, and is responsible for a staff of 136 people and an overall operating budget of $22.6 million a year. For the past 26 years, Mr. August has worked in an upper management capacity within public works and engineering departments for the Cities of Dana Point, Encinitas, Manhattan Beach, and Pasadena, as well as for a private firm, Wildan Associates. His duties have involved planning, park development efforts, operations and maintenance, liaison with state and federal agencies, and management of staff, consultants, and contractors. He received his Bachelor of Science degree in Civil Engineering from the University of Southern California in 1972. Mr. August actively led and participated in a team of professional consultants and contractors on an extremely complicated $3.5 million restoration of bluff failure along the Coast Highway. The project was awarded the 1995 Putnam Award of Excellence by the League of California Cities, and was selected from over 70 projects nationwide to receive the American Public Works Association's 1995 Project of the Year Judge's Award of Distinction.

ROBERT RUSSELL

Mr. Robert Russell is an Assistant City Engineer for the City of Redding responsible for the management of the Engineering Division, consisting of 20 employees. Mr. Russell has 20 years of professional experience in capacities such as Associate Civil Engineer, Public Works Operations Manager, and Assistant City Engineer for the City of Redding and Ott Water Engineers. As Assistant City Engineer, Mr. Russell manages the Engineering Division, which is responsible for the design and contract administration of Public Works capital improvement projects. In his capacity as Public Works Operations Manager, Mr. Russell was responsible for the management of maintenance operations of the City's Water Utility, Storm Drainage Utility, Maintenance Electrical and Engineering Group and Streets and Parking Divisions. He has been involved in projects such as hydrologic studies, hydropower feasibility studies, and a City Wide Storm Drain Master Plan.

JERRY SWANSON

Mr. Swanson is the Director of the Development Services Department for the City of Redding and is responsible for the management of four divisions consisting of Airports, Building, Planning, and Geographic Information Systems, with a budget of $6.3 million and 48 full-time employees. For the past 22 years, Mr. Swanson has worked in an upper management capacity in charge of community services, advance planning, current planning, and property management for the Cities of Glendale, Arizona; Walnut Creek, California; Rockford, Illinois; and Tucson, Arizona. His duties have involve marketing/communications, recreation, housing and transit, library departments, advance and current planning, property management and administrator for a regional council of ten governments serving a two-state urban and rural area of nearly 500,000 people. He received his Master of Science degree in Urban Planning from the University of Arizona, Tucson in 1981 and a Bachelor of Arts in Economics from the University of California at Santa Barbara in 1967. Mr. Swanson has been an active member of the American Planning Association and the International City/County Management Association.

COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

The City of Redding will comply with all standard terms and conditions. Attached is a fully executed and notarized Noncollusion Affidavit to be Executed by Bidder and Submitted with Bid for Public Works (Attachment D).

I-015223

C. Boggs, Inc.
4401 Hazel Ave., Suite 275
Fair Oaks, CA 95628
(916) 961-7757

April 13, 1999

Leonard Wingate
Redding City Attorney
P.O. Box 496071
Redding, CA 96049

Re: Oak Meadow Estates / Shasta View Investments

Dear Mr. Wingate:

Pursuant to your request I am writing a letter to you as President of C. Boggs, Inc., General Partner of Shasta View Investments, a California Limited Partnership regarding the property owned by the partnership, known as APN: 110-150-20.

To whom it may concern:

Please be advised that I have been involved in ongoing discussions with the City of Redding regarding its Clover Creek Flood Protection and Environmental Enhancement Project. It is my understanding that my property will not be acquired through condemnation and I have indicated a willingness to enter into a good faith negotiation to sell the property in question for implementation of that Project.

Sincerely,

C. R. Boggs

RECEIVED
APR 14 1999
CITY ATTORNEY

THOMASON
DEVELOPMENT
COMPANY

April 8, 1999

Mr. W. Leonard Wingate
Office of the City Attorney
760 Parkview Avenue
Redding, CA 96049-6071

Re: Clover Creek Flood Control Project

Dear Mr. Wingate:

Please be advised that I have been involved in ongoing discussions with the City of Redding regarding its Clover Creek Flood Protection and Environmental Enhancement Project. It is my understanding that my property will not be acquired through condemnation and I have indicated a willingness to enter into a good faith negotiation to sell the property in question for implementation of that project.

Very Truly Yours,

Coburn R. Thomason

7090 North Marks, Suite #102 • Fresno, California 93711
(209) 432-1600 (209) 432-2714 FAX

I-015226

CITY OF REDDING

OFFICE OF THE MAYOR
760 Parkview Avenue, Redding, CA 96001-3396
P.O. Box 496071, Redding, CA 96049-6071
530.225.4447 FAX 530.225.4463

Robert C. Anderson,
Mayor

April 6, 1999
W-030-660-700

The Honorable Glenn Hawes, Chair
Shasta County Board of Supervisors
1815 Yuba Street
Redding, CA 96001

Dear Supervisor Hawes:

Subject: Clover Creek Flood Protection and Environmental Enhancement Project

As you may be aware, the City of Redding, in conjunction with the SHASTEC Redavelopment Project Area partners, is proposing to implement the Clover Creek Flood Protection and Environmental Enhancement Project on a parcel of land that is located near the edge of the City limits. This project will involve acquisition, restoration and preservation of up to 135 acres of land to provide for flood protection while concurrently providing for benefits such as ecological restoration and walking trails for public enjoyment and education. The project will enhance the area and provide benefits to both residents of the City of Redding and the County of Shasta.

In order to obtain funding to implement the project, the City of Redding is preparing a proposal to request funding from the CALFED Bay-Delta Program in response to its February 1999 Ecosystem Restoration Projects and Programs Proposal Solicitation Package. The purpose of this letter is to comply with a request of CALFED that project proponents inform County officials of projects that are proposed to occur within the County.

If you have any questions or would like additional information regarding the project, please feel free to contact our Public Works Director, Mort August, at 225-4170.

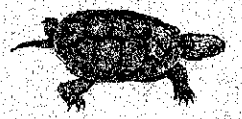
Sincerely,

Robert Anderson
Mayor

ra/ma/kr.143

I —0 1 5 2 2 7

I-015227



I-015228

George B. Gentry
3305 Toro Way
Redding, CA 96002-9763
Telephone: 530-221-6558

Ecosystem Roundtable Members
CalFed Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Re: Clover Creek Flood Protection and Environmental Enhancement Project

Dear Ecosystem Roundtable Members:

As a resident of the City of Redding/Shasta County I am writing to support funding of the Clover Creek Flood Protection and Environmental Enhancement Project. The project has a primary goal of providing flood protection and management in an area where flooding has caused damage in past years. In addition, the project has public benefits such as ecological and habitat restoration, interpretive areas for educational values, and walking trails for public enjoyment.

This project will provide multiple benefits for the residents of Redding and Shasta County, as well as meet

I-015229

the habitat and flood plain restoration and management goals and objectives of the CalFed Bay-Delta Program. As a resident of the Redding/Shasta County/ Clover Creek flood affected area I would appreciate your favorable consideration of this worthy project.

Thank you.

Sincerely,

George B. Gentry

Resident of the City of Redding

I-015230

March 31, 1999

Ecosystem Roundtable
CALFED Bay-delta Program
1416 Ninth Street, Suite 1155
Sacramento, Calif. 95814

Re: Clover Creek Flood Protection and Environment Enhancement Project.

Dear Ecosystem Roundtable Members

Please be advised that the undersigned residents of Shasta County are all residents in the Clover Creek area just south and west of the City of Redding along Goodwater Avenue, Freeman Drive and Faye Lane. We are writing this letter jointly because our interests are similar, and we are joint plaintiffs in certain litigation currently pending against the City of Redding, the County of Shasta, and various developer defendants.

We are encouraged by the proposal by the City of Redding, and we hope and expect that the proposed project will mitigate the flooding which we have experienced over the last several years. We are pleased that the proposal has facets which apparently are friendly to the environment and the surrounding habitat. Hence, we add our support to the Grant Proposal requested by the City.

Any project which seeks to resolve the annual flooding of our properties is welcome and supported by us. Any support you organization can lend to the project will be greatly appreciated.

Thank you for your kind consideration and attention to this matter.

Sincerely,

Gary and Cindy Finley
4121Goodwater Avenue
Redding, Ca. 96002
(530) 221-3941

John and Carrie Perrin
4161 Goodwater Avenue
Redding, Ca. 96002
(530) 223-4334

David and Deborah Behnke
20038 Freeman Way
Redding, Ca. 96002
(530) 221-7156

Robert and Debbie Wigham
4285 Goodwater Avenue
Redding, Ca. 96002
(530) 222-8058

Myrtle Locke
4101 Goodwater Avenue
Redding, Ca. 96002
(530) 221-3934

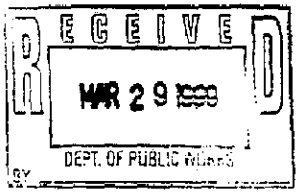
Lucille Mullica
8866 Faye Lane
Redding, Ca. 96002
(530) 221-7941

I-015231

Mort August
City of Redding

3/26/99

Clover Creek Flood Protection
and Environmental Enhancement Project



Hi:

I have sent the suggested form letter as written to CALFED.

My choice of the three alternatives presented at the meeting is #1 with a walking trail only. I feel that the recent park addition on Victor is the one to use for activities as it is close to this area.

Except for floood control and parking for the walking path the entire area should be habitat.

Number three alternative is not a choice for consideration unless that would be all that could be done with available funding. Any flood control would be helpful.

Sincerely:

CHARLES PICARD
4775 GOODWATER AVE.
REDDING CA 96002

222-3102

Ken Behnke Construction
5830 Fagan Drive
Redding, Calif. 96001
530-246-7793
KCBehnke@aol.com
Fax 530-244-9520

March 29, 1999

Public Works Dept.
760 Parkview Avenue
Redding, Calif. 96049-5071

RE: Clover Creek Flood Protection and Environmental Enhancement Project

Dear Ecosystem Roundtable Members:

We are residents of the City of Redding/Shasta County and are writing to lend our support for funding of the Clover Creek Flood Protection and Environmental Enhancement Project. The residents will benefit from this project in ways such as flood protection and management in areas that have recently become prone toward flooding. Along with that will be the ecological and habitat restoration, interpretive areas for education, and walking trails.

We will appreciate your favorable consideration of this project.

Thank you.

Sincerely,

Ken and Marcia Behnke

Resident of the City of Redding

I-015233

Suggested Form Letter

Name Beulah mae Hill
Address 731 Wild Horse ct. Redding, Ca. 96003
Telephone Number (530) 223-4746

Ecosystem Roundtable Members
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Re: *Clover Creek Flood Protection and Environmental Enhancement Project*

Dear Ecosystem Roundtable Members:

I am a resident of the City of Redding/Shasta County and am writing to lend my support for funding of the Clover Creek Flood Protection and Environmental Enhancement Project. The project has a primary goal of providing flood protection and management in an area where flooding has caused damage in past years. In addition, the project has public benefits such as ecological and habitat restoration, interpretive areas for educational values, and walking trails for public enjoyment.

This project will provide multiple benefits for the residents of Redding and Shasta County, as well as meet the habitat and flood plain restoration and management goals and objectives of the CALFED Bay-Delta Program. The residents of the Redding/Shasta County area appreciate your favorable consideration of this worthy project.

Thank you.

Sincerely,

Signature Beulah mae Hill

Resident of the City of Redding

I-015235

State of California
The Resources Agency
Department of Water Resources

Agreement No. _____

Exhibit _____

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS

STATE OF CALIFORNIA)
)ss
COUNTY OF SHASTA)

MORTON F. AUGUST (name), being first duly sworn, deposes and says that he ~~or she~~ is DIRECTOR OF PUBLIC WORKS (position title) of CITY OF REDDING (the bidder),

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid.

DATED: April 15, 1999

By Morton F. August
(person signing for bidder)

DAVID M. FORSETH
COMM. #1188661
NOTARY PUBLIC — CALIFORNIA
SHASTA COUNTY
MY COMM. EXP. JULY 27, 2002

(Notarial Seal)

Subscribed and sworn to before me on April 15, 1999

David M Forseth

(Notary Public)

DWR [illegible]

I-015236